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# *The* MANAGEMENT REVIEW

Volume XV

AUGUST, 1926

Number 8

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# *The* MANAGEMENT REVIEW

August, 1926

## Are Statistics Stabilizing Business ?

By JOSEPH H. BARBER, *Staff Assistant to President,*  
*Walworth Company*

STATISTICS of trade have been on trial long enough now to attempt at least a tentative measure of their value. As recently as fifteen years ago, statistics could have aided business but slightly because their scope was inadequate. In his book, "Industrial Depressions," published in 1911, George H. Hull advocated as the most important remedy for depressions the collection and monthly publication for business men of statistics on the existing volume of construction under contract for future months. At the time, scant heed was paid to this or any other plea for pertinent monthly data on the volume of current trade.

After the war, the Federal Reserve Board, the Department of Commerce, and other responsible agencies not only stimulated the interest, but also cultivated the confidence of business men so successfully that these men, acting usually through their trade associations, are now releasing for the public benefit a vast fund of valuable monthly data. Available statistical material is so profuse and varied that, sizing it up off-hand, the problem now seems to be to sift the wheat from the chaff.

Not exactly so, of course. But the student of a particular business must deliberately avoid consideration of much valuable and interesting data, simply because it is irrelevant, because too much "adjustment" is necessary or because the facts cannot be made known in time to influence major decisions. On the other hand, there are many business students who are finding in the mass of data many gisty kernels of fact that, taken together, are proving a real aid toward more stable operation, increased efficiency and greater profits.

Business has been stabilizing and profiting by increasing study and understanding of facts. To whom the credit is due may be in question, but the fact is becoming evident. Certainly much progress is due to the increasing proportion of individual executives who insist upon facts prior to all major decisions. An executive may shun statistics and scorn forecasters. Yet,

under today's requirements for any degree of business success, an executive simply must "figure it out" in advance. The forecaster does no more. Probably the major difference is found only in that the forecaster persists a little more deliberately in checking his impressions against facts, and in checking his own industry's results against external economic causes that have contributed toward those results.

For instance, in forming, revising and checking our future programs of production, inventory and sales activities, we have found the available data does aid in shaping Walworth policies. Continuous study of the data through recent years has enabled us to eliminate some of the chance and guesswork which could not theretofore be eliminated. Instead of having impressions as to what volume of business was flowing and whether the trend was down or up, we had very specific facts. Consequently, we feel we have been able to steer our course more intelligently, and have gained some of the benefits of stabilization.

We have been able to summarize the most valuable guiding data in a single index representative of the quantity of ordering demand in the valve and fittings industry. Its monthly plottings reveal the average intensity of ordering demand in sixteen different nationally representative industries allied to our industry. Still, because valves and fittings are demanded generally by nearly every other industry, the final average is considered a fair measure of general ordering demand in the United States.\*

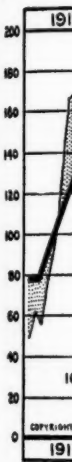
To the extent that this index does serve as a broad indicator of general ordering demand, there is significant evidence that business in general is definitely stabilizing. Our tendency in past years has been to become intensely optimistic when the demand surged upward and just as intensely pessimistic when demand receded. A glance at Figure 1 will show that in the past four years we have had a rise in business volume at some time in each year. Each time such a rise occurred in demand, business men felt their confidence waxing strong, because the momentary outlook was promising. Then suddenly fear would undermine confidence and orders would slump.

We all had learned a lesson after that scare of 1921 when abnormal conditions resulted from the war and its aftermath. Forward contracts had to be made at low prices and inventories had to be big ahead of a boom in order to cash in on the profits. But we simply could not afford to be caught with swollen stocks. This explains the widespread tendency to attempt excessive capitalization of the "boom" which came along in early 1923. And, it explains why such extremely high ordering rates, being built upon an unsound foundation, collapsed of their own weight to another extreme in the opposite direction when confidence melted away. All of which tended to prevent that stabilization which is so vital to profitable business.

A business man would resent the implication that he is carrying on his

\* For a fuller discussion of the index see "A Timely Guide to Manufacturing Control," by the writer in *Manufacturing Industries*, June, 1926.

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business on a basis of "fits and starts." The truth is that in the past so little knowledge has been made available to him concerning the basic facts that he has been almost forced to follow a policy which does suggest "fits and starts." Still there has been great improvement. Figure 1 offers convincing evidence that, with the passage of time, the rises and falls in the movement of business are assuming less and less importance. Because of the more frequent breathing spells for checking up progress against actual facts, the real major trend cycles of today are more moderate in their ups and downs than they were in the earlier years.

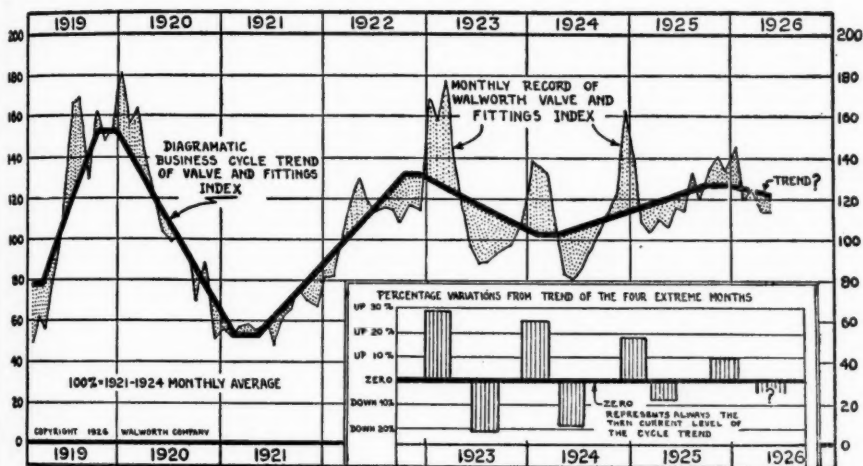


FIG. 1. TRENDS OF THE WALWORTH VALVES AND FITTINGS INDEX

The chart also shows that since 1921 the rises and falls each year have been steadily declining in size. It seems to have been the tendency to spurt ahead to high ordering rates for four good winter months and then to slump immediately to four poor spring months. We recognized this when we prepared the little inset diagram at the bottom of the chart. The percentage bars in that inset diagram show how average ordering rates in these four-monthly periods varied over and then under the real trend level of ordering that would have persisted if there had been no "fits and starts" in ordering. To be sure, that real trend itself has some wave-like motion, but in the inset chart we have drawn it out in a straight line so as to emphasize only the variations from the real trend. Then the diagram clearly shows that the fits and starts of ordering are growing less and less every year.

This means, of course, that since the beginning of 1922, despite these temporary upward and downward surges, business has gradually been more stabilized from year to year. Those who are watching the real trend of demand are helping to cut off the worst of the sharp peaks and the deep valleys. Now, in the light of such facts slowly accumulating, we are seeing the folly of "fits and starts" as a mode of operating business. More and more are we

coming to learn that it is the real steady average trend that should be the basis of our buying and selling operations.

All of this is more than merely "interesting statistics." It is gradually becoming a vital factor in industrial control. The chart shown as Figure 2 gives some indication of this. It will be noted at once that the monthly curve of Walworth's "Incoming Orders" there shown is strikingly similar to the average fluctuation of the sixteen national industries represented in the

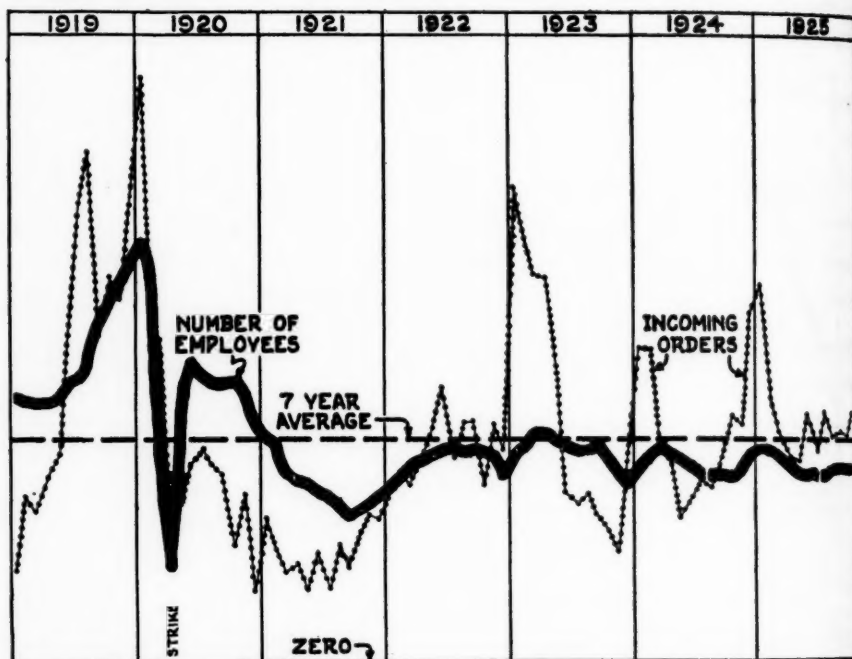


FIG. 2. STABILIZATION OF EMPLOYMENT AS EFFECTED BY BUDGETING

monthly curve on Figure 1. But from the year 1922, when we gained some of the first benefits from the study of statistics, right down to the present time, there is clear evidence, first, of stabilization in the "Number of Employees" line, and, second, of improved efficiency indicated by a thirty per cent reduction in the number employed to produce a slightly increased average volume.

Walworth Company, in operating its plants and planning its sales with a view to the coming trend, as interpreted from statistics, feels that it is contributing a real share to the leveling process which tends to eliminate more and more the violent fluctuations in the movement of business. Nor are we alone in all this, for many must have contributed to the stabilization of general business already noted. In that direction, we, with many others, are seeking the help of our friends and customers, so that the moderation in the cycle movement of the last four years may be furthered still more.

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# THE MANAGEMENT INDEX\*

## Abstracts and News Items

### GENERAL MANAGEMENT

#### Competition and Unrest

The authors of "The Secret of High Wages" give nine fundamentals which bring desired industrial results. After an extensive tour of American plants, banks and other commercial organizations they conclude that these American methods may be applied to advantage, as they are in fact in certain isolated English firms. The nine points follow: 1. The success of an enterprise is, in a large measure, dependent upon a strict adherence to the policy of promotion of staff by merit and ability only. 2. It is more advantageous to increase total profits by reducing prices to the consumer, at the same time maintaining or improving quality, with a consequent increase in the volume of sales than by attempting to maintain or raise prices. 3. Rapidity of turnover makes for comparatively small requirements of both funded and working capital, i. e., the capital required for shop space (including equipment) and the finance of work in progress. 4. The productive capacity per capita of labour can be increased without limit, depending upon the progress made in time and trouble-saving appliances. 5. It is better that labour should be rewarded by wages bearing some relation to output rather than by a fixed wage, the amount of the wages earned by any one man being in no way limited. Contrary to the general belief in Europe, high wages do not necessarily mean a high level of

prices. It is to the advantage of the community that the policy of industrial management should be directed towards raising wages and reducing prices. 6. A free exchange of ideas between competing firms should be advocated. 7. Elimination of waste is an essential factor in the attainment of national prosperity. 8. It is important that every possible attention be paid to the welfare of employees. 9. Research and experimental work are of prime importance to progress. By Bertram Austin and W. Francis Lloyd. *System* (British), May-June, 1926, p. 233:3.

#### Timely Guide to Manufacturing Control

Trade is defined in terms of *new trade*. Changes in the quantity of order placing or contracting by those who trade in valves and fittings is a useful measure of the changes in the activity of the valve and fittings trade. The valve and fittings index is an average of 16 separate indicators of national demand for valves and fittings. Eleven indicators actually measure the volume of ordering or contracting in building, equipment and other national industries demanding or creating a demand for valves and fittings. And, given equal importance in the average, there are five indicators of the actual quantity of orders placed upon nationally representative producers for sanitary ware, brass faucets, and others of the products usually associated with the valve and fittings line.

The article proceeds to make trend comparisons, to analyze the movement of orig-

\*A copy of any article abstracted may be obtained by sending to the office of the Association 25 cents per page which represents the cost of photostating.

inal monthly plottings and compares the valve and fittings industry with the index of price cycles issued by the Harvard Committee on Economic Research. The article points out that rising prices are not an indication of rising demand, for the demand may have long since risen to its peak. Almost contrariwise, it seems that rising prices will always force ordering rates down to lower levels.

If this is true, we need no longer fear price increases nor make extensive speculative commitments on account of them. We shall understand that any other than a very moderate price rise represents only exaggerated enthusiasm and cannot be long sustained. Large quantity volumes of demand will not continue, and "volume" production rates cannot be sustained under high price conditions.

Steadier prices will contribute toward more regular employment and steadier operations. Steadier operations mean better

efficiencies and greater profits. To gain these ends, we need to avoid booms and depressions. By Joseph H. Barber. *Manufacturing Industries*, June, 1926, p. 417-4.

#### Industry and the University

The Vice-Chancellor of Leeds University outlines the benefits of a trained mind in industry, but evidently has no belief in the ability of the university to give training in management. Management must be found in direct contact with business. Except in the most general ways, it has no universal scientific rules. Management is a mystery, and "I hope it will long remain a mystery." Another difficulty of management is that men are not going to communicate it to their neighbors. So much for the point of view of a British University officer. By Dr. J. B. Baillie. Seventh Annual Conference of the Association for Education in Industry and Commerce, 1925. 14 pages.

## FINANCIAL MANAGEMENT

### Distributing Administration Costs

There are many intelligent applications of practical expedients in distributing administrative costs but no sound underlying theory which governs their modifications. Accounting cannot tell the whole story of any business. Some of its limitations are set forth. Selling expense can be allocated to production cost to a greater extent than illusive administrative effort. "The function of administration in industry is essentially personal and inherently one of co-operation and service." Net profits alone must show its cost and results. By Leon E. Vannais. *N. A. C. A. Bulletin*, June 15, 1926, p. 748:10.

### Operating and Turnover Ratios

The most interesting type of analysis from a going business viewpoint is that given by a study of turnover ratios, which as a whole expresses the relationship be-

tween operating results and the capital employed. The ratios discussed are: Turnover of Total Capital Employed; Turnover of Receivables; Turnover of Inventory; Turnover of Property Investment; Ratio of Surplus Net Profits to Net Worth; Ratio of Gross Profits to Sales; Ratio of Selling and General Expenses to Sales; Ratio of Operating Profits to Net Sales; Ratio of Surplus Net Profits to Sales. By Arthur Andersen. *Manufacturing Industries*, June, 1926, p. 441:4.

### "How Budgetary Control Helps in Business Management"

The foundation on which a scientific business budget must be built is "sales analysis." It gives a base on which to construct a perfectly balanced operation. The budget is the gyroscope compelling balance. The operating schedule purchase and cash budgets must be co-ordinated. Sales expense, administration and general expense

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budgets complete the picture. All are consolidated into a master budget, the composite brain of the business on paper. Monthly budget exhibits for a well organized business will show: Amount of actual shipments; cost of materials used; cost of direct labor; cost of indirect labor; amount of depreciation; sales expense; administrative and general expense; profit or loss. Each item should be reduced to its percentage ratio of the total net sales. By F. W. Shibley. *Bankers' Monthly*, July, 1926, p. 20:2.

#### Readjustments and Reorganizations: The Stockholder and Corporate Control

Readjustments and reorganization in many corporations show old devices refined and new features added. Holding companies, non-voting trust certificates, retireable preferred stock are well known, sometimes unfavorably. The cumulative voting plan of the Pennsylvania Railroad is a form of voting frequently demanded by a minority during a readjustment as it gives proportional representation to all interests. The customs in regard to the transfer of stock on the Exchange have an important effect where control lies with stock held on speculation. It is usual for the Exchange house to retain stock in its own name when bought on margin. "Strict certificates" are used for its transfer, endorsement on the back being alone sufficient. The stock may stand on the company's books in the name of the Exchange brokers, without regard to its actual present ownership. Success in a conflict for corporation control may lie therefore in securing proxies from Exchange brokers. Exchange houses are inclined to give proxies to the management or the banking house behind the company rather than to an angry but less known group of reforming stockholders. The opposition and all concerned will use all the influence and dexterity they can to secure proxies but there is no "black-jacking" by banking houses. Several conflicts may be on at the

same time with bank and Exchange house together in some, opposed in others. By Frederic Drew Bond. *Barron's*, July 5, 1926, p. 5:1.

#### Budget Plan of Liquid Carbonic Company

This article is a complete description of the construction and enforcement of the comprehensive budget program of the Liquid Carbonic Company, including the sales budget, the productive budget, selling expense budget, manufacturing expense budget and general expense budgets.

The procedure in preparing the budget estimates is described in considerable detail, involving the preparation of estimates at headquarters, revised in consultation with all executives involved, even down through the organization to the last foreman and district sales manager. The president of the company is the chief enforcing officer, "partly because he was formerly treasurer." The article suggests that the controller will more and more become enforcing officer. By Willard J. Graham. *Manufacturing Industries*, June, 1926, p. 425:6.

#### Stockholders' Voting Rights and the Centralization of Voting Control

Prior to the beginning of the present century there existed but little restriction of the voting rights of shareholders. This article outlines in considerable detail the different types of restrictions on voting rights covering non-voting industrial stocks, both preferred and common, contingent voting stock, both preferred and common, especially preferred.

Conditions which render operative the contingent voting rights of industrial preferred stocks are outlined in detail, including dividend defaults and many other considerations.

Another section of the article discusses the extent of contingent voting control of industrial preferred shareholders as well as non-voting and contingent voting stocks of public utilities and railroads.

There is an excellent section on argu-

ments for and against non-voting stocks. The arguments in favor of non-voting, preferred stocks are as follows:

1. They have come to occupy an investment position to such an extent that there is no reason why they should not be thus restricted.

2. Such issues lead to conservative financing by promoting the use of stocks in preference to funded debt.

3. Shareholders do not regard themselves as directly interested owners of the corporation.

None of these arguments are regarded as sound reasons for the non-voting stock even though they may be a sound interpretation of the actual situation. The author, however, does not object to limitations in voting rights though he severely criticizes some forms of it. He views contingent voting rights as a means of bringing about thorough-going and expeditious readjustments in a corporation's affairs. It is the potential possibilities of contingent voting stocks in these respects, rather than their present characteristics that suggest them as perhaps a partial solution of the problem of voting control. By giving full voting preferred stockholders sufficiently strong contingent voting rights, it would be possible for such stockholders to make themselves felt in the corporation's affairs whenever it was important that they should do so.

A strong contingent voting stock the writer would define as an issue conforming to the following three requirements: (1) The contingencies upon which voting rights become effective should be designed not only with reference to protecting specifically the interests of the contingent voting issue, but also for the purpose of insuring conservative management. (2) The conditional voting rights should become effective promptly and expeditiously upon the occurrence of these contingencies. (3) The voting power given the contingent voting stockholders should be sufficient to permit them to make comprehensive changes in both the management and policies of the

corporation if this is deemed necessary or desirable.

Speaking generally, the contingent voting stocks discussed in this survey do not conform satisfactorily to these criteria.

The author makes a concrete suggestion to which the foregoing survey leads, that the problem of meeting the increasing concentration of voting control lies along the lines of the development of strong contingent voting stocks rather than of full voting issues. Though doubtless most desirable as an adjunct to otherwise limited voting control, or even substantially non-voting, they are better adapted to securing the proper management of the corporation and the adequate protection of shareholders than other forms of issue. By W. H. S. Stevens. *The Quarterly Journal of Economics*, May, 1926, p. 353:40.

#### Readjustments and Reorganizations: A Bird's Eye View

A receivership is the line of demarcation between readjustment and reorganization. It is precipitated when a company cannot meet its current debts from its liquid assets, and can turn no more fixed capital into a loan. Before a receivership, the stockholders have the opportunity to effect a rehabilitation through the collection of new funds or a guarantee. This is rarely accomplished. After a receivership the stockholders can do nothing. When a receiver is appointed the trustees of the bonds can do nothing so long as the receiver elects to pay interest on the bonds. Bondholders may have to sit by powerless while the receiver issues certificates which may be a lien on the total assets ahead of all bonds. But bondholders' committees will have a strong influence, though no reorganization committee has any definite legal standing. Probably it will soon be standard practice for the plan and agreement between the various creditors to be drawn up, subject to the approval of the court. Legal claims cannot be stranger than the economic facts allow and assets of great value may have little value if sold as a parcel. Reorgani-

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zation is usually effected through the formation of a new company and the creditors given legal claims against it. The "ghost" of the old company may live on unless dissolved by law as extinguished by the state for non-payment of taxes. By Frederic Drew Bond. *Barron's*, June 21, 1926, p. 3:2.

### Be Sure Your Budget Is "Honest"

At first, many thought of budgeting almost entirely in terms of what we now call financial budgeting. They were concerned primarily with capital and cash requirements implied in the estimated expenditures in the factory, the office, and sales organizations, with some consideration of the income expectancy implied in sales quota estimates.

It is now more generally recognized that budgeting involves not merely financial estimates but also estimates of output, estimates of inventories of both supplies and finished goods, estimates of sales volume as well as expense, and, most important of all, a synchronization of all these into a general budget as a basis of operating policy.

The greatest danger to the budgeting movement at the present time is the vicious practice of establishing pace-setting sales quotas for territories, lines of goods, and salesmen.

The real trouble is that pace-setting sales quotas are very likely to be converted into estimates of what actually will be sold and these in turn will be converted into estimates of what must be produced, what raw materials must be purchased, and what labor must be employed and trained.

The hope is father of the thought. There is the greatest temptation in the world to be generous in converting pace-setting sales quotas into sales estimates and then into production estimates without making sufficient allowance for the characteristic optimism of salesmen and sales executives. We want to keep the factory organization together. We all like expansion programs. The sales executive is good at selling us his optimism—or he would not be where he is—and he quickly

and easily forgets the difference between a pace-setting quota and an estimate of sales probabilities.

Budgeting in most companies must begin with sales estimates. If the foundation is unsound, the superstructure will fall. Production executives and financial executives can make no greater contribution to budgeting progress than by insisting on "honest" sales budgets, and if necessary showing sales executives that modern production technique can be applied in large measure to sales management—and by the production executive himself. By W. J. Donald, *Factory*, June, 1926, p. 1034:2.

### Who Puts Up the Money for Instalment Selling?

The vice-president of the First National Bank of Chicago emphasizes three important points. They are as follows:

1. The minimum down-payment on new passenger cars shall be not less than one-third of the cash price or 30% of the time-selling price, including accessories and equipment, at the point of delivery, and on used cars not less than 40% of the cash price or 37% of the time price.

2. The maximum maturity of instalment paper covering new or used passenger cars shall be 12 months, payable in equal monthly instalments.

3. The finance companies shall furnish their depository banks from time to time with a financial statement certified by recognized certified public accountants, together with replies to a questionnaire and other information that the banks may request of them. By Arthur W. Newton. *System*, June, 1926, p. 783:5.

### Feeling the Pulse of a Business

A financial statement is calculated to present a snapshot picture of the operation of a business but unless the reader knows something about that business—unless he is acquainted with the intimate details of its operation—he is apt to get quite a false impression from the rows of figures that go to indicate assets and liabilities. Some

illustrations of this principle are presented.

For instance, a big inventory is not worth a great deal if business is going to be so bad that the goods will not sell. If it consists of seasonal goods, the season must be taken into consideration. And the price always counts. Were the goods bought on a rising market? Is there prospect of a further fall?

The same is true of capital assets under which "plant and equipment" come.

One important matter to watch is the income account which gives a motion picture of the movement of the business from year to year showing even the slightest deviations of earning power and determining whether the business is holding a satisfactory ratio of sales in comparison with profit—whether, in short, the business is growing at the rate it normally should. By F. M. Kasch. *System*, June, 1926, p. 763:3.

## OFFICE MANAGEMENT

### Space: Location, Equipment, Arrangement

#### Some Difficulties of Scientific Seating

Anatomic modeling of seats holds the pelvis and with it the spine, in erect position by affording a backward-sloping depression in the rear half of the seat floor, a clearance under the seat-back for the buttocks, and a sustaining of the lower spine and pelvis by the placing and shaping of this splat. It distributes the weight by placing the thighs on a higher level; it avoids pressure under the knees by the depth and shape of the forward edge of

the seat; affords rest for the shoulders of a shape and height to flatten the shoulder blades on the back rather than to round them forward. Correct height and depth of seat are presupposed. This is the result of the labors of the Technical Committee of the American Posture League. The elimination of fatigue is assuming importance from the standpoint of producer and workman, and correct seating will have its share in cutting down fatigue. By Jessie H. Bancroft. *American Stationer and Office Manager*, June, 1926, p. 21:2.

### Organization: Job Analysis, Employment, Pay, Tests.

#### A Graphic Rating Scale

After preparing a graphic rating scale utilizing a number of qualities, weighted for their importance, a hundred or more ratings are obtained from each rater, his frequency curve computed and his cumulative curve plotted. Then a measuring scale is prepared to be used in assigning points for each rating given by him. On the rating sheet of each employee, beside each quality, there is entered the point value of his rating, multiplied by the previously determined weighting of that quality, and the resulting products totaled. This is divided by the maximum number

of points possible and expressed in percentage. By Eugene J. Bengé. *American Stationer and Office Manager*, July, 1926, p. 15:4.

#### Do You Want to Be Chief?

The author reveals what some of the workers' aspirations are and why the ambitious employee sometimes "gets on the nerves" of those above him. The real business of an employer is summarized, bringing to light the strain those duties have upon him which are invisible to his employees. Several illustrations are given showing the importance of acquiring the

employer habit of mind. By Max Rittenberg. *Business Organization and Management*, July, 1926, p. 151:3.

### Clerical Test Scores and Schooling

The Metropolitan Life Insurance Company was a pioneer in the adoption of objective standardized methods of examination of applicants for clerical positions. This article covers a description of the mental examination adopted in 1919, together with scoring instructions, norms, and comparisons of the performance of men and women and of groups with different educational backgrounds.

It presents some very interesting conclusions regarding the relative merits of applicants with high school training, grammar school training, and college training; comparisons of men and women and the advantages of supplementary business school training for different groups. By William F. Dobbins with the assistance of Elizabeth J. Steele and Florence DuBois. *The Journal of Personnel Research*, July, 1926, p. 83:14.

### Stability of Men and Women Office Workers

A statistical analysis of the employment records of Henry L. Doherty & Company shows that although in 1923 the percentage

of resignations was greater among women than among men, in 1924 the difference decreased and in 1925 there were proportionately fewer resignations among the women than among the men, the ratio being 68 to 100.

Some of the reasons are set forth, including better methods of personnel administration, constituting improvements in the status of women workers, a greater centralization of the functional control of personnel activities, the use of psychological tests for the occupations of which the vast majority of women employees are incumbents, an improvement in the method of job analysis for these occupations and an organized attempt to eliminate prejudices against women employees, with a view to increasing the lines of promotion open to them. Conditions similarly favorable to men have prevailed for some time.

When length of service of the employees who resigned is examined, the women appear in still more favorable light. In 1924 and 1925 they served on the average a longer time than the men.

Marriage is less and less becoming a cause of turnover, for no longer do business women necessarily resign after marriage, but keep working. By Harold B. Bergen. *The Journal of Personnel Research*, July, 1926, p. 71:3.

### Administration: Regulations, Supplies, Communications

#### \$52,000 Saved in Non-Productive Work

The General Electric Company has already realized many possibilities for reduction of expense in its offices, service stations and warehouses. A few actual cases are cited covering the use of internal envelopes, tissue letter copy paper, the use of the commercial duplicator, etc. By V. V. Heimstreet. *Manufacturing Industries*, June, 1926, p. 449:2.

#### Keeping Track of Office Supplies

The familiar stock room of the factory has its counterpart in the office all too in-

frequently. In a small office one stock room in the space least desirable for clerical work but fairly central and convenient is best. In a large office departmental stock rooms may be necessary. Neatness, ease of handling, accessibility and compactness are the chief requisites. Steel shelves are more easily changed and moved than wooden ones. Numbering of forms facilitates the ordering and inventorying of supplies. A stock record card enables the office manager to see at a glance how many units of a given kind are on hand, date the last lot was ordered, date received, quantity

ordered, number used, department to which issued, etc. In a small office only a bin tag may be used and on it may be kept a running inventory. Attempts to control the amount of supplies issued to clerks appear arbitrary if carried out to too fine a point.

The office manager and the stock clerk can usually judge the correct amount and rely on the honesty of the office force for co-operation. By John H. MacDonald. *American Stationer and Office Manager*, June, 1926, p. 1703:3.

## Training and Education: Schools, Libraries, Employee Publications

### Courses in Statistics—The Question of Emphasis

Statistical courses frequently turn out graduates inclined to attempt to use fine surgical instruments to plow up the rough mathematical soil of business. Good, sensible training in mathematics and a knowledge of business organization, records, routines and practices will enable the college-trained statistician to do the best practical work. The necessary association between statistical theory and practical business can be secured from the study of records and practices in local business organizations, the study of trade association reports, the review and criticism of material in current business literature and certain types of data and records available from the university itself. Emphasis should be placed upon the practical application of elementary methods. Only inci-

dental attention need be given to the theory underlying methods and only limited consideration to the more complex and exact mathematical methods. By Bryce Haynes. *The Ronald Forum*, June, 1926, p. 1:2.

### The Need for Enlightened Leadership in Industry

The substitution of methods, attitudes and spirit of leadership for bossism must first take effect at the top and then work its way down the line to the minor executives; it cannot begin with the minor executives and work up. Fortunately leadership can be taught just as salesmanship can be taught. The minor executives, who are in direct contact with labor, are the key men in such an educational program, which should eliminate the evils incident to bossism. By O. F. Carpenter. *Industrial Management*, June, 1926, p. 366:7.

## Records: Forms, Charts, Cards, Files, Statistics

### Do You Always Use the Right Chart?

The function of graphic charts is to integrate, to render manageable otherwise bewildering arrays of figures; to enable the executive to move with comparative ease among a mass of facts; to provide a basis for the more intelligent study of the significant relations subsisting between such facts; and to suggest lines of investigation that might otherwise have escaped notice.

Two main types of charts are especially suitable for demonstrating or integrating comparative data: (1) The familiar rectilinear chart, and (2) the semilogarithmic (or so-called "ratio") chart.

The proper uses of these charts are indicated by illustrations. By George V. Kracht. *Factory*, June, 1926, p. 1050:5.

### The Work of the Order Department

The varied uses of the duplicates of the original order are traced through a manufacturing plant, a mail order house and an import and export office. In production plants the order obtains action or supplies a check for the production, shipping and engineering departments and the factory manager. The system which clears every order in a mail order house within twenty hours is admirable. The order department

in an export house is responsible not alone for the shipment of the goods but for collecting and checking a list of important

customs and shipping documents. By John D. MacDonald. *American Stationer and Office Manager*, July, 1926, p. 19:3.

## PRODUCTION MANAGEMENT

### General: Promotion, Organization, Policy, Development

#### Capitalizing the Advantages of the Small Factory

The present article deals with the subject of co-operative buying and selling, which it is predicted are inevitable, and the only two courses open to small manufacturing plants are to enter large combinations or to co-operate closely with other similar concerns. The economical minimum quantity for mass production leaves a large field for the small plant, and too, the large organization is handicapped by its very size as the smaller factory is able to give the closest personal attention to customers.

No longer need competitors of equal size be "viewed with alarm." Closer co-ordination may bring greater rewards than the

old cut throat competition. By Dale S. Cole. *Industrial Management*, July, 1926, p. 54:6.

#### Results of British General Strike

Radicalism in Great Britain has had a severe setback as a result of the general strike. But there is a clear warning to the American coal mining industry in the British developments. If England puts her coal industry in order, we may expect its effects will be felt here both directly in competition with our own bituminous industry and indirectly in lowered production costs for British goods. *Babson's Reports. Business Supplement, Confidential Bulletin No. L-265.* 1 page.

### Plant: Location, Lighting, Heating, Ventilation

#### Factory "House-Cleaning": A Summer-time Opportunity

The practice of shutting down the entire plant for one week during the summer, or possibly at the end of the fiscal year when stock-taking can be carried out, has proved to be a most efficient means of maintaining large institutions. This gives the maintenance department an opportunity to perform the work which cannot be done while the plant is in operation. The regular routine and emergency repairs, of course, are carried out in the usual way. It also gives the employees an opportunity for a short vacation which is becoming so important in this day of automobiles and general raising of the standard of living for the American working people. It gives the manufacturer a chance to clean house and to put his shop in order.

The moving of departments is something which can be facilitated greatly during this week. The practice of the George E. Keith Company is outlined in this article. By K. D. Hamilton. *Factory*, June, 1926, p. 1065:5.

#### Is Your Light Being Stolen?

If all of the lamps and reflectors in America were washed today, the illumination would be doubled tomorrow. Unfortunately, but a small number of plants enforces a regular and systematic maintenance schedule.

When dust collects on lamps and reflectors, the illumination is very quickly reduced to the point where production is unfavorably affected and the accident hazard is increased. There is therefore a loss from decrease in production or spoilage—

or both—which is entirely unnecessary. Moreover, the light that is wasted through absorption by dirt must be paid for, just the same as if it were utilized to the best advantage.

The walls and ceiling play an important part in the illumination upon the work, since to some extent their reflecting power will determine the total amount of light at the point where it is needed. The color and finish of the walls will also affect the diffusion of light, the nature of the shadows, and the appearance of the room. By

Roy A. Palmer. *Factory*, June, 1926, p. 1109:2.

#### **Maker and User Profit by New Methods**

A detailed description of the handling of equipment and the straight-line layout of the plant of the Westinghouse Electric Products Company is given. The installation has already cut costs and permitted reductions in the selling price of some products. By E. M. Olin. *Manufacturing Industries*, June, 1926, p. 413:4.

### **Industrial Economics: Labor and Capital, Legislation, Wage Theory, Immigration**

#### **Ask a Half-Billion Wage Increase**

There has been a 20 per cent increase in purchasing power since 1914 and railroad workers are now far better off than in pre-war years. Experience both here and abroad has shown that it is useless for railroad employees to talk of still better conditions of service, or of wages and hours, if the industry cannot bear the cost. They must realize that it is only where there is no restriction of output, free use of labor-saving appliances, and a high standard of individual efficiency that high wages can be paid. Labor should begin to realize that high wages, short hours, inefficiency and restriction of output cannot exist to-

gether. By Lee G. Lauck. *Iron Age*, June 24, 1926, p. 1776:2.

#### **Real Relation of Wages and of Living Costs**

When a selling price is lowered, wages are more often lowered after the price cut than before and are taken to be incidental rather than a direct cause in the rate of change.

Three charts exhibit the relations between production, wages, sales and living cost that can be really constant. By L. M. Stowell. *Manufacturing Industries*, June, 1926, p. 448:1.

### **Employee Service: Hygiene, Recreation, Lunch Rooms, Stores**

#### **The Place of Athletics in the Industrial Scheme**

From an extravagant basis during the war, and a decided slump in 1921, industrial athletics have now regained a useful level. They apparently are in industry to stay, in the less elaborate and more spontaneous forms. Athletics should be for the worker, not for the factory. The basis of a successful athletic program is something of athletic interest for everyone. Such a program can be carried out without undue

expense, and leads to better health and better morale among the workers. By Dr. W. Irving Clark. *Industrial Management*, June, 1926, p. 386:3.

#### **Forestalling Influenza Epidemics**

During the past three months the country has had an attack which was relatively light, but conservative estimates place the loss it caused of 300 employees in a plant of 10,000 for every day of the outbreak. This loss can be largely eliminated provided people take a hand. The first and

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main defense is through a well organized health department. The benefit of this is twofold:

1. It affords proper treatment to the employee at a time when more serious illness often can be prevented.

2. It insures the segregation of contagious cases which in time of general epidemics is most valuable.

It has been discovered that such epidemics run in cycles. When the danger period falls during summer weather there has been no damage, but when they fall during cold weather an epidemic occurs. The next danger period will come about next November and preventive measures are recommended.

By knowing the moment an epidemic appears at any given point, other localities can be forewarned of the approaching wave and special precaution can be taken. Such a warning also gives employers time to prepare in a measure the plans and organization of their business, and being forewarned serves to relieve the panic which the emergency of an epidemic in-

variably causes. Babson's Reports. *Business Supplement, Confidential Bulletin No. L-265*. 3 pages.

### How Shall We Organize Our Athletic Association?

This article is a symposium of information on how athletic activities of companies are conducted. It is interesting that in practically every case all employees are eligible to membership in the athletic association. A large percentage of the companies report that no dues are charged in their organizations and in those organizations in which dues are paid, the charge is small, averaging about fifty cents a year.

Very few athletic associations employ an athletic director. In practically every instance all athletic equipment, with the exception of personal equipment, such as shoes and baseball gloves, is furnished by the organization. Athletic equipment usually is kept by the officers of the association. A great number of organizations have athletic fields of their own. A good many of the associations sponsor activities for women. *Factory*, June, 1926, p. 1040:4.

### Training and Education: Schools, Libraries, Apprenticeship, Employee Publications, Bulletin Boards

#### Moving Pictures for Executives

The Hayward Company has adopted the use of moving pictures to "bring the shop to the men." Now the monthly meetings are looked forward to with great interest and the directors can see exactly the developments which are being made in all of the five departments. They have also been found useful in dealing with dissatisfied customers. By Judson Hayward. *Factory*, July, 1926, p. 41:2.

#### Teaching Foundry Practice

Few engineers are thoroughly familiar with foundry work and few can speak with intelligence of practical or technical

foundry problems. As a consequence, comparatively few college graduates are going into foundries. Other branches of work offer them cleaner work with greater compensation at the start. The foundry is far behind other branches of industry in scientific improvement and advancement. The article makes a plea for instruction in foundry and pattern work for an engineering student. A few foundries are co-operating with the schools as well as leading firms in the electrical industry by conducting small conferences for engineering teachers and by giving vacation employment for engineering students. The article states that something should be taught concerning the technical and administrative phases of foundry work. By C. Earnill. *The Iron Age*, June 3, 1926, p. 1573:2.

### Apprenticeship—Its Status and Its Possibilities

A comprehensive airing of this subject which should be increasingly important to industry. These plans are described: The traditional, shop instruction, training on the job, pre-production training, intermittent training, and co-operative. Experience seems to show that there are at least two necessary factors for success: 1. Offering sufficient incentives to apprentices such as assurance of continuous employment, guaranteed opportunity to require mastery of the trade, and an adequate increasing wage scale. 2. Co-operative effort on the part of employers, the workers and the public educational institutions. By Dorothy Sells, Ph.D. *Industrial Management*, June, 1926, p. 351:4.

### Apprenticeship—Its Status and Its Possibilities

The concluding instalment of a series of three articles describing some successful apprenticeship schemes in operation in representative plants. These cover in considerable detail apprenticeship on the railways, printing apprenticeship, foundry industry training, and apprenticeship training in the building trades. A selected bibliography is added. By Dorothy Sells, Ph. D. *Industrial Management*, July, 1926, p. 21:9.

### Employers Aid Employees

The Lumbermen's educational classes in British Columbia have completed three successful years. There is no formality about these classes, no hide-bound enroll-

ment, no membership cards and no fees. Such matters as forestry practice, waste utilization, physical properties of the various species, and timber research are discussed. A series of lectures are now being given at which grading and other matters are dealt with, an examination will be held and marks awarded at the end of the series.

At one mill the management permit the setting aside of a certain quantity of mis-manufactured lumber and on Sunday afternoons a class is held at the plant and the defects of each piece are studied under the supervision of an expert grader. All employees attending these demonstrations are paid their full wages for the time they spend in instruction. By R. M. Eassie. *Four L Lumber News*, June 1, 1926, p. 21:2.

### Wages and Foreman Training

At a Manufacture Group Meeting of the U. S. Chamber of Commerce Mr. Cyrus McCormick, Jr., stated that it was the policy of the International Harvester Company to fill all vacancies from within the organization whenever possible. When this proves to be impossible, the company feels that it has failed in a particular job of training a man for a given position. They practice the belief that no man has ever been injured by training under him a man better equipped for his position than he is himself. Such a policy is effective in attracting better types of young employees. *Nation's Business*, June 5, 1926, p. 50:2.

### Benefit Systems and Incentives: Group Insurance, Pensions, Vacations, Profit Sharing, Wage Plans, Suggestions, Stock Ownership

#### Unemployment Relief—a Burden or an Investment?

This article is a description of the unemployment relief practice of the Dennison Manufacturing Company by its president. Where unemployment relief is being paid, the amounts paid out as compared with the weekly payroll are surprisingly small. If

the cost of relief payments were compared with the cost of labor turnover, it might prove that the payments for unemployment relief really represent a bargain. The company's idea is that it is better to pay unemployment relief than not to pay it, and better still, to try to reduce unemployment wherever that is possible. To the latter

end, six major measures in regularization methods are employed. These measures are: 1. Long-range stock goods planning; 2. getting seasonal special orders in early; 3. adding stock items to supplement specials; 4. developing lines for supplementary seasons; 5. training operatives into supplementary jobs; 6. watching the cycle and limiting expansion at its peak.

The fund has to date totaled some \$150,000. Out of this the total disbursements since 1920 have been about \$40,000.

Fire insurance has been one of the strongest incentives to fire prevention; accident compensation has spurred on the safety movement. Assumption of responsibility for unemployment relief will become a major incentive in the prevention of unemployment. By Henry S. Dennison. *System*, June, 1926, p. 795:2.

#### **We Pay Well—and by Results**

A director of Arthur H. Lee & Sons, Ltd. (textiles) quotes the paradox that cheap labor is expensive. Employees' earnings are reviewed twice annually and a graph showing relative production values is prepared. 75 per cent of their employees are paid by results. By Christopher A. Lee. *System* (British), May-June, 1926, p. 240:2.

#### **Decreased Efficiency Is Real Problem of Vacations**

The greatest cost of vacations does not lie in the vacation itself, but in the lowered efficiency of all office employees during these summer months.

There is a growing liberal tendency toward vacations in business and industry and this is a healthful and progressive sign. On the other hand, employees should cooperate in maintaining efficiency during the summer months and not penalize their employers by a lessened attention to their jobs. In the final analysis this whole problem is one of human relations and where there is any marked inefficiency in office forces during the summer the responsibility must be accepted by the management.

Any concern with a sound labor policy can secure the whole-hearted co-operation of its employees in this matter if the facts are properly set before them. Babson's Reports. *Business Supplement, Confidential Bulletin No. L-265*. 1 page.

#### **Principles of Wage Payment**

The Manufacturers' Research Association advocates three general types of wage payment: 1. Piece work, 2. group piece work and 3. day work. These plans are discussed at some length in a pamphlet published by the Boston Chamber of Commerce. 12 pages.

#### **Children's Compensation for Industrial Accidents**

When workmen's compensation bills were passed it was hoped that such vigor would be put into the safety movement that children especially would be safeguarded. How this hope has been fulfilled is discussed here and numerous examples of children's injuries received in factory employment are given. Every report thus far made that deals with compensation actually paid out, makes it clear that minors sixteen and seventeen years old are more often and more seriously hurt than younger children protected by specific child labor statutes, or than older workers whose muscles are under better control, and whose judgment is more mature. By Florence Kelley. *Survey Graphic*, June, 1926.

#### **Managers' Securities Company**

Through the Managers' Securities Company, the executives of General Motors Corporation will eventually own approximately ten per cent of the General Motors stock. This company was organized in 1923 as an expression of the partnership policy of the du Pont Company which is the largest General Motors stockholder. The du Ponts believe the way to obtain results is to interest as partners the executives responsible for the operation of a

business. Accordingly, they sold 562,500 shares of General Motors common at \$60 a share, the then market price, to the Managers' Securities Company. Payment by the Managers was \$8.80 a share cash, the balance, aggregating \$28,800,000, being in deferred payments over a period of eight years to 1931. That stock at current market prices is worth approximately \$73,000,000, an appreciation of more than \$39,000,000 in three years.

When the company formed General Motors agreed it should receive 5 per cent of the corporation's net earnings, after allowing 7 per cent on the capital employed by General Motors in its business. *New York World*, June 10, 1926.

#### Why We Put Three Workers on the Board

Ford, Ayrton & Co., Ltd. (silk spinners) established a profit-sharing scheme in 1917. They further decided that as soon as the workers had £500 invested they would be entitled to appoint two of their number on the Board. These worker directors have powers of advice and counsel but none to interfere with the actual carrying on of the business. These employee-directors retire at the end of three years as do the original directors and are eligible for re-election. The management feels well satisfied with this plan as it has produced a better understanding of the business on the part of the workers. It has also increased production when hours were shortened from a 55½ to 44-hour week. By R. Charles Ford. *System* (British), May-June, 1926, p. 236:2.

#### Employee Suggestion Systems

Suggestion systems have become so universal that it is no longer a question as to whether firms shall adopt them or not, but only how to make them work. The means of establishing the system in the favor of employees, and the best procedure for receiving, considering, rewarding, and rejecting suggestions are outlined in this bul-

letin. By Herman Feldman. *Management Bulletin*, June 24, 1926. Kardex Institute, 4 pages.

#### Now Our New Workers Stay With Us

This article by the president of Rollins Hosiery Mills describes the method of compensating new workers which has greatly reduced the turnover of new workers from an average of 300 per cent for many years to a comparatively small number. Formerly they paid a beginner a straight-time rate until the piece-work earnings exceeded the time rate. Some operators were satisfied with the time rate. Consequently when piece rates were established for beginners, they dropped out to find straight salary jobs after the company had spent time and money to train them for skilled work. The sudden change from a steady wage to the uncertainty and instability of personal efficiency was just a repetition of the old story that it is human nature to follow the lines of least resistance.

The result was a change to a method by which the new employee goes on the piece rate plus a bonus, which is reduced each successive week until the beginner is entirely on piece work. By H. T. Rollins. *Factory*, June, 1926, p. 1044:6.

#### A Study of Mutual Benefit Associations

A study of seventy-six mutual benefit associations in Massachusetts. Out of fifty-three associations reporting, forty-three begin benefits after one week's absence. Seven of these, however, pay from the first day if absence extends over a period of from two to eight weeks. In twenty-five per cent of the cases the company contributed an amount equal to that collected by the employees. The initiation fees range from 25 cents to \$2.00, and the dues from 10 cents a week to \$1.00 a month. Eighteen associations provide age restrictions, with the majority leaning toward a maximum of 50 to 55 years. By Edward M. Coffin. *Industry*, June 5, 1926, p. 3:2.

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## Labor Relations: *Collective Bargaining, Employee Representation, Arbitration*

### The Practical Results of Employee-Representation

The vice-president in charge of manufacturing of the International Harvester Company states that step by step their works councils have advanced of and for themselves along the road of co-operation to a point where safety of workers and increased quantity and sustained quality of product are now among their primary aims.

The works council of to-day is a long way ahead of the glorified grievance committee so familiar half a dozen years ago. Attention to safety by the heads of the works council of the Chatham, Ontario Works has brought about the result that in 1924, in 1925 and to date in 1926 the plant has not had a single lost-time accident. It takes employee co-operation to do it. Yet the majority of industrial corporations continue to overlook the possibilities which such councils offer, some perhaps through lack of interest; some through skepticism; many, no doubt because they do not realize what works councils are accomplishing and have no acquaintance with the new technique of management which is being developed by and through them.

As a forum for the discussion of both management and employee problems, each of our works councils is discovering that quality is important from the employee standpoint as well as from the management standpoint. Increased quality means increased reputation for quality, increased reputation means more orders, more orders mean more work and better earnings. By Cyrus McCormick, Jr. *Factory*, June, 1926, p. 1027:11.

### Industrial Situation in Russia

Enterprises in Soviet Russia are divided into three classes according to their importance. Through the Supreme Council of National Economy the government conducts the most important industries. The managers are political appointees to insure

loyalty of the plants to the government, but permanence of position is dependent on actual ability. The technical experts who operated the plants prior to the war continue to control operations and insure economical production eventually. They report to a technical director as well as to the local manager. The latter apparently devotes himself primarily to questions of labor, social welfare and the relations of management to labor. The government requires everyone in a trade or craft to belong to a union. The union and the trust fix wages by the year through contract. There are seventeen divisions of skilled and unskilled workers and each carries a specific rate of pay in terms of the rate fixed for the lowest, which is the only one fixed annually. The eight-hour day is standard throughout the entire country, except for special men, chief engineers and others under special contract, who are required to work all the time necessary without extra compensation. By Stewart McC. Marshall. *Iron Age*, July 1, 1926, p. 1:3.

### Viscount Grey Calls for New Labor Policy

In the address before the National Liberal Club in London, Viscount Grey, one of the leaders of the British Liberal Party, points out the moral of the general strike and urges capital to make the worker its partner. This does not mean mere profit sharing. Profit sharing by itself will always be looked upon as a sort of bonus or bribe to keep labor quiet; it will not give the sense of partnership. The sense of partnership can only be given by sharing in the management. While labor's participation in management may make management more difficult, yet prompt efficient management is no use if it is sterilized by the obstruction of labor; and if it gets the good will of labor the advantage of associating them in management far and away over-balances and outweighs any diffi-

culty which might arise from making the management rather more slow.

Viscount Grey recognizes that at present representatives of the men on the management would be apt to take shortsighted views and might even be obstructive, but in the long run it would help to change the view of labor. Another difficulty is that the trade unions themselves are not at all responsive to any such suggestion as partnership. *New York Times*, June 13.

#### **Council on Industrial Relations in the Electrical Industry**

The International Brotherhood of Electrical Workers, and the Associated Electragists, International, with a membership of some 2,250 firms, have established an industrial council which has to date rendered some seventy written decisions in the settlement of disputes between members of the two organizations. The Council has functioned with such effectiveness that for more than two years the electrical industry has operated continuously without a strike.

The Council was created by a committee composed of members of both organizations. The outcome of the committee's study was a "Joint Declaration of Purpose" in which was embodied a program for future joint action. The principles of this declaration of purpose are set forth in the article.

#### **Shop Organization: Planning, Methods, Job Analysis, Standardization, Waste**

##### **Thousands of Orders: No Late Deliveries**

This article describes a simple production control board for a plant that manufactures to order. The general plan behind the operation of this board is first to establish a schedule of operations; then check the actual operations against this schedule; and, last, locate definitely the exact spot of variation from the schedule, if any exists.

The board is made up of a number of panels, each containing 100 horizontal

Acceptance of the unanimous decision of the Board of Conciliation is purely a voluntary matter. If the Board does not reach an agreement, it shall make a finding of the material facts and state the reasons why it has been unable to reach an agreement. The Council then acts as arbitrator upon the findings presented to it. If it arrives at a unanimous decision, the decision shall be submitted to each party to the dispute, the same as though the Board of Conciliation itself had reached a unanimous decision.

The Council prefers to be considered as a court of justice rather than a court of arbitration. It holds that arbitration involves compromise, whereas judicial settlement involves "the application of definite and certain principles without any accommodation between the parties." The Council has no mandatory powers. It relies rather upon the individual's instinctive spirit of fairness and the proper response from the fact-informed public. For recognition of its findings, it depends upon publicity and public opinion.

It urges the faithful observations of agreements made in the interest of industrial relations. The Council handles disputes affecting apprentice wages and also the question of laying off men. All decisions are local. *Law and Labor*, June, 1926, p. 164:3.

spaces, each of which is assigned to a production order. Each panel is divided into eight vertical spaces, and each vertical space is headed by the name of one step in the process of production. A rectangle is thus provided for every operation on every order.

Very little control can be derived from a board that merely shows the present status of orders. The use of "post-mortem" boards has been all too common. The markers on them show what has been

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done. For control it is necessary to know also what should be done. In order to determine what should be done, it is necessary to establish a schedule of operations.

The board is operated on the exception principle. No attention need be paid by any one to orders that are moving along properly. It is only the laggard that must be watched and prodded along.

It is a simple matter to locate the order behind, the system being that the department holding it complete it without delay. Any increase in orders behind schedule in any department will be known immediately, and steps can be taken immediately to bolster up that particular department. The weak link in the chain of production is quickly indicated, and it can be strengthened long before there is any danger of failure of the chain as a whole.

Prior to the installation of this control, over 20 per cent of the orders were shipped after the promised date, in many cases entailing severe losses to customers. To-day less than 4 per cent fail to go out on time. By R. J. Rahn. *Factory*, June, 1926, p. 1046:3.

### How We Simplified Stock Handling

Production for each man increased 25 per cent; force reduced 18 per cent; an increase in work handled of 12 per cent; shipping time reduced 60 per cent; order-filling errors cut to 1/10 of 1 per cent; and fault-packing damages to 1/100 of 1 per cent—those are the results of one year's experience with a new layout, especially planned and equipped to give service on repair and replacement parts of the White Company.

The real determining factor in laying out the stockroom proper is the stock itself and the rate at which it is being disbursed. In the old stockroom the parts were grouped according to the units of the truck—motor, transmission, frame, axle, etc. The new plan provides for a simple triple classification, forming the basis for three stockrooms. All small, relatively fast mov-

ing parts, making up probably 75 per cent of the items, for which they could use the maximum conveying equipment at reduced handling cost, go into Stockroom "X."

Stockroom "Y," located in direct line between receiving and packing, covers all of the larger, heavy parts, which usually are floor storage items and for which practically no uniform methods of handling are possible. Stockroom "Z" fills the basement and houses all crated parts, such as fenders, hoods, rims, running boards, and tanks.

The most outstanding equipment feature of the stockroom, outside of the flexible steel shelving installation, is the automatic gravity and belt conveyor. By E. D. Power. *System*, June, 1926, p. 810:4.

### The Expanding Uses of the Electric Industrial Truck

The electric industrial truck has been found well fitted for transporting a variety of materials which range from tin plate to molten glass, and from cloth to pig lead. Auxiliary attachments have made it possible to increase the general usefulness of standard models of this equipment. For materials which must be handled in an unusual way, specially engineered modifications of the electric industrial truck have been developed.

The article proceeds to outline the uses to which different types of trucks can be put. By Harold J. Payne. *Factory*, June, 1926, p. 1035:4.

### The Greatest—and Least Popular—Source of Profit

Practical and simple matters are discussed, covering telegrams—or letters, paper, pencils, scrap material, small tools. The author believes that the study of economic problems is one of the chief functions of industry. It may even take an extended period of panic and loss in business to bring us back to less wasteful habits and extravagance. By W. Rockford Conover. *Industrial Management*, July, 1926, p. 39:7.

### Reduction in Prices Through the Elimination of Industrial Waste

This paper includes abstracts from the Thirteenth Annual Report of the Secretary of Commerce. Since 1921 some 900 group conferences have been held by the Division of Simplified Practice, practically all at the request of the industries themselves and 229 committees are now at work on various phases of the program.

The paper outlines developments in the elimination of waste in railroad transportation, on our inland waterways, through enlarged electrification, through statistics, in processes in the construction industries, through specifications and business documentations, in distribution, in fisheries, and through state and highway safety. By Herbert Hoover. Washington Government Printing Office, 1925. 28 pp.

### Production Records: *Time Cards and Performance Records*

#### Keeping Up Improved Operating Results

At the Maurer plants of the Barber Asphalt Company savings in labor cost are four times the expense of betterment work. The methods used are:

1. To make adequate records of the standards for the purpose of preservation.
2. To provide means of perpetuating them.

A system of written instructions has been installed, reinforced by charts, layouts, sketches, stereophotographs and mo-

tion picture film which is doing much as a preserving agent in the maintenance of standard methods and in furnishing the information necessary for effective teaching.

There are illustrations of instruction sheets for operation, standing orders and charts showing the performance of new crews during learning period, the learning curve of a new man, the output per man-hour and the relation of labor input to production output. By Joseph A. Piacitelli. *Manufacturing Industries*, June, 1926, p. 435:5.

## BUYING, RECEIVING, STORING, SHIPPING

### Traffic Management and Selling

The traffic department functions with the sales department in connection with outgoing traffic in the same manner as with the purchasing department in connection with inbound traffic. Another form of constructive traffic work, performed in connection with the sales department, has to do with freight rates. Among the co-operative functions of the industrial traffic department is the work in the selection of markets which is done in collaboration with the sales departments. The traffic manager is able to give expert advice as to the markets in different sections of the country in which the efforts of the sales department are most apt to be profitable. The traffic department often materially assists the sales department in building up

good-will for the company by service to customers. The mail order houses are especially active in work of this sort. By Dr. G. Lloyd Wilson. *Lefax*, June, 1926, p. 50:3.

### The Traffic Department and Purchasing

Far-sighted traffic managers of the modern type are not limited to the auditing of freight bills and tasks of that character, but are extending their fields of service by functioning as transportation experts in contributing to the solution of the problems of supply, sales, advertising, branch factory and plant management, warehousing, distribution, and other merchandising problems. Not only can the traffic manager co-operate with the purchasing department

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in procuring supplies at the lowest delivered prices at the factory, but in arranging and regulating the flow of traffic inbound. He can also assist the purchasing

agent by advising the buyer as to the transportation facilities that are available. By G. Lloyd Wilson. *Lefax*, May, 1926, p. 50:3.

## SALES MANAGEMENT

### Need for Study of Distribution

A census of distribution would help to eliminate the present waste in marketing. No figures appear to be available on manufacturers' costs of distribution. It would be illuminating to know from month to month and year to year the relation of the reaction and effect of quantity upon price and of price upon quantity. By Alvin E. Dodd. *Iron Age*, June 24, 1926, p. 1781:2.

### Two Ways to Check Sales Daily

The sales manager of Rollins Hosiery Mills outlines a method by which they have adopted a simple code and set of maps on which is penciled each man's name in his territory, together with his boundary. Then, from his daily report sheet, a girl pegs the map. A red tack means an immediate order; a blue tack indicates a future

order; and a white tack means that he visited the town but sold no goods. To show the progression in each territory, a different code for each season is used so that the map shows the comparative results for three seasons at a time.

But positive results are not the alpha and omega of sales records; they must be supplemented with a method of discovering and eliminating negative effort. Therefore, the company has another chart which shows every man's wasted effort in proportion to his net sales. On this chart the year's work of each salesman is indicated by a line which is broken into five colors. The red in the line shows total net shipments; the pink, total amount returned; the blue, total amount cancelled; the yellow, total amount refused; and the green, total amount not shipped because of shortages or selling obsolete numbers. By C. P. Pulliam. *System*, June, 1926, p. 794: 1.

## Sales Promotion: *Letters, House Organs, Advertising*

### A Market Survey and Its Results

This article describes the results secured from a survey of the use of certain types of building materials and also describes in detail the methods used in extending the sales of a certain article. The method was to establish what was called a "trade-marked house." The method of putting over the "trade-marked house" idea is outlined, including personal contacts through the sales organization and mechanical contacts through advertising, such as mail, display, publications and remembrance. The analysis covered a careful study of the commodity and competing articles and the markets to be cultivated and the method of

personal distribution. By H. L. Keely. *Manufacturing Industries*, June, 1926, p. 421:4.

### Making Charts Safe Business Guides

The general sales manager of The Carter's Ink Company issues a warning regarding the use of graphic charts and gives some excellent illustrations of how the facts may be magnified by charts in such a way as to give the wrong impression. Graphic charts have their decided limitations and one of the great dangers is the apparent ease with which two dissimilar products or individuals can be compared. As a matter of fact, charts

can draw only comparisons which can be represented in figures and by comparisons of figures. By Walter F. Wyman. *System*, June, 1926, p. 816:7.

### Introducing a New Product

To introduce a new product the Williamson Candy Company employs an entirely new sales force. In each city a teaser campaign is conducted while the special crew obtains adequate retail and jobber

distribution. The cat is then let out of the publicity bag. When 80 per cent distribution is secured the crew moves on and a second crew appears to "nail down" the brand and makes it a permanent part of the candy business of the city. Clock-like precision and a carefully mapped-out plan are vital. One little slip-up in a rapid-fire teaser campaign may affect results surprisingly. *Sales Management*, June 26, 1926, p. 1007:3.

## Salesmen: Selection, Training, Compensation

### Why We Don't Have to Hunt For "Born Salesmen"

This article by the general sales manager of the National Cash Register Company describes their sales training methods. The instructional material is based on the best selling methods of the best salesmen. The instructors are former successful salesmen. The course of instruction is designed to teach three things: the need for the product, the construction and use of the product, and the best selling methods to be used in its distribution.

On completion of his preliminary office training, the new salesman is assigned to his territory to make a door-to-door canvass. This work is done under the supervision of senior salesmen. This canvassing is continued until he becomes proficient in analyzing the needs of merchants and developing live prospects. Then his canvassing work gradually decreases and he spends an increasingly greater portion of his time in following up prospects.

After about three months of such experience he is eligible for the sales school. This tryout, or probation period, is really an integral part of the training plan, because in it the prospective salesman learns some of the difficulties to be met, as well as the elementary principles of selling methods. This method of selecting and training salesmen has done much to keep down the rate of turnover among the

salesmen. The principles of the company's sales schools are as follows:

They use only experienced and successful salesmen as instructors.

They hold the school in favored surroundings, away from distracting influences and in the open air.

They admit only salesmen who have demonstrated their eagerness to join and stay with the company, as well as their desirability as salesmen in actual work in the field.

They teach store systems and store problems.

They teach by visualizing and by giving the salesmen students a chance to do, for we learn to do by doing. By Charles E. Steffey. *System*, June, 1926, p. 802:4.

### How American Radiator Company Trains New Salesmen

The American Radiator Company has one training class of new salesmen per year averaging twenty men. As a foundation for the course an investigator traveled with the salesmen studying six points in their work: Personality of the salesmen, technique of the sale, personal difficulties encountered, trade difficulties and weaknesses, objections to American Radiator Co., products, and why don't American Radiator Co. merchants sell more. 225 difficulties were listed and the methods used in meeting them.

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of the business, made it possible to develop a practical training course with three divisions: Company products, engineering and technical problems, and sales problems and methods.

New men first do practical work in the branch offices for two weeks and then go to Buffalo for classroom, factory and laboratory training for six or seven weeks. In the sales portion of the course the practical side is supplemented with broader subjects such as the qualifications, for selling; the selling process; handling the interview; organization of the salesman's work; merchandising and advertising; sales promotion. By R. C. Hay. *Printers' Ink Monthly*, July, 1926, p. 21:5.

#### Why Only One of Our Salesmen Has Quit in Fifteen Years

The Durand Steel Locker Company develops the men within its own organization to such good advantage that only one man has quit or been fired in fifteen years' time. Even the office boy is trained to be a salesman. If possible, men are taken into the organization immediately after they are graduated either from high school or college, and they are then expected to learn the business from the ground up. This policy engenders an esprit de corps among all workers, because each man is conscious that an interest is being taken in his work. And the sales force is equipped to sell a quality product against the toughest kind of competition. By H. A. Struck. *Sales Management*, July 10, 1926, p. 17:3.

#### When the Sales and Advertising Plan is Ahead of the Organization

The experience is recounted of a concern that during the past ten years has had no fewer than five sales managers, each of them being a man of outstanding ability. The trouble is summed up in the one word: inertia. These five men went up against a human organization that had been trained for at least two

generations in certain habits of thought and action, and found it impossible to change them. By Cheltenham Bold. *Sales Management*, July 10, 1926, p. 62:2.

#### Latest Developments in Salesmen's Earnings and Compensation Plans

This report covers the trend of compensation plans since 1923 and shows approximately twice as many concerns reporting some form of commission payment as those using a salary arrangement. Annual earnings show a slight increase in the three years. A considerable number of profit-sharing bonus plans and other forms of extra financial incentives for salesmen are described in considerable detail. The pros and cons of salary vs. commission are outlined by a number of sales managers. The article also covers plans for regulating or abolishing drawing accounts, a plan for tiding salesmen over dull periods, recent expense account practices and factors to be considered in changing the compensation plan. *Special Report, Sales Method Investigation*. Compiled and edited by The Dartnell Corporation, Chicago. 23 pages. Report No. 228.

#### Abilities Necessary in Effective Retail Selling and a Method of Evaluating Them

The selection of retail sales people has long been a thorn in the side of personnel research workers. In contrast retail sales methods have been much more amenable to scientific study. This article covers an investigation which indicates not only the soundest statistical procedure in connection with problems of this sort, but also presents results of immediate practical use to department store executives in obtaining judgments of the effectiveness of their sales clerks.

It describes the interview method of determining traits which are considered important for retail sales people, presents the graphic rating scale used by shoppers

in rating salespeople in selling situations, and the statistical method of analysis.

The opinion is expressed that the graphic rating scale is of considerable value in occupational analysis especially when ratings are made of real situations in the occupation under consideration.

The method outlined centers the attention of the raters upon persons in a series of concrete situations rather than in hypothetical or generalized situations. The interests and attitudes of the raters are important elements in the total situation. By Helen E. Cook and Grace E. Manson. *The Journal of Personnel Research*, July, 1926, p. 74:9.

#### A New Kink in Compensation Plans for Salesmen

The sales force of the Leyman Buick Company of Cincinnati is divided among four zones, each zone force making a "pot" of its commissions. Whether a man makes a sale or not he receives his full share but poor men automatically fire themselves. Their fellow salesmen are stricter with them than a sales manager could hope to be. All must spend two hours on a daily list of cold calls before seeing their prospects. All territories are thrown open for a short time occasionally to reveal where prospects are being neglected. *Sales Management*, June 26, 1926, p. 1019:2.

#### The Way to Meet Today's Sharper Competition

All the way through the business of Austin, Nichols and Company they have tried to develop the specialty method of selling—"selling staples by specialty methods" it might be termed. They strive also to keep themselves out of the staple seller's frame of mind. The basic principle of selling is that they can sell pretty much what they set out to sell so it becomes their job to sell the things they want to sell—naturally, those things which pay an attractive profit. Any kind of business can ordinarily profit by applying

modern management of the sort developed by specialty people to its problems.

Most of the jobbers who have had to go out of business are the ones who have not known how to sell. Business conditions of the present day demand intensive selling. When the company takes up an item of their line for special consideration they give it enough momentum to last until efforts can be turned to it again, but the rest of the business cannot be allowed to suffer because one line is pushed for a while. This point is watched all the time by means of sheets on which the executives can dissect a man's sales—one sheet for each salesman. Down the left-hand margin are listed the various departments of the business. Across the top are set such headings as "sales," "gross profits," and "net profit." Each month the salesman's business is dissected on this sheet and the sheets then pass through the hands of the department heads for their information. By Charles W. Patterson. *System*, June, 1926, p. 779:8.

#### More Sales in Hot Weather

A symposium of methods used by the Barrett-Craven Company, Greenfield Tap and Die Corporation, Bean Spray Pump Company, J. G. Cherry Company, Simonds Saw and Steel Company, Elliott-Fisher Company and Associated Editors, Inc. *System*, June, 1926, p. 787:2.

#### What a Wholesaler Thinks of Free Goods Deals

The free goods offer, as a method of merchandising, appears to be about as strong to-day as it ever was. The president of the Hessig-Ellis Drug Company believes that more time than in the past is being devoted to the selling of quality merchandise that brings a legitimate profit on each turn and that no free deals, discounts or irregular practices should be allowed to disturb these conditions. By Robert R. Ellis. *Printers' Ink*, July 15, 1926, p. 25:3.

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### Closing 40 Per Cent of the Sales on the First Interview

After a careful analysis it was learned that the sales of high-priced automobiles could be closed on the first call if the salesman handled the interview properly. The salesmen of the Chicago Nash Com-

pany discovered that almost half their prospects would buy after the first demonstration if they asked for the orders. In connection with this first-call plan, a sales contest was staged which sold a number of cars. By Richard Wolfe. *Sales Management*, July 10, 1926, p. 35:2.

## Survey of Books for Executives

**Statistical Analysis.** By Edmund E. Day. Macmillan, New York, 1925. 454 pages. \$4.00.

This new volume on statistical method is precisely the type that one might reasonably expect from its author, an able, lucid and scholarly presentation of a difficult and, to a large majority of minds, confusing subject. It would be difficult to find a book that might be more recommended to the instructed general reader, and especially to those who wish to find a clear and well reasoned, rather than highly technical, treatment of the subject. Professor Day says in his Preface that the sub-title of the book might be given as "The Logic of Statistical Analysis," and this well expresses its character and value. It is alluringly free from the flourishes of the unduly expert mathematician, very cautious in its judgment of the value of statistical results, and contains many excellent admonitions as to common errors. Its examples are apt and of a character that the laity may grasp.

Even the titles of many of the chapters suggest precisely the especial character of the volume, as, for example, the contrasting of "Spatial Distributions" and "Temporal Distributions;" the definition of correlation as "The Analysis of Paired Variables;" "Increments and Rates of Change;" "Evolutionary Movements: Secular Trend;" "Periodic Movements: Seasonal Variation;" "Residual Movements: Cyclical and Irregular Fluctuations;" "Analysis of Grouped Variables: Index Numbers;" and, finally, "The Nature of Statistical Results."

The chapter on the measurement of cor-

relation is prefaced by a profitable chapter on the meaning of correlation, and in conclusion the writer makes the timely observation that "there are few more difficult tasks for the statistician than the evaluation of correlation coefficients." To the reviewer this is saying in very sober language that a useful method, of very limited value, has been exploited to a grotesque degree, and that the amount of labor wasted in this rather barren amusement is unimaginable. The idea that days and weeks may be given to calculations to discover correlation coefficients of low value when, particularly with regard to time series, the same could be swiftly revealed by a rough plotting on a log chart, illustrates anew the inveterate tendency to do with difficulty that which may be simple and easy.

Professor Day adds a warning footnote that "values of the indices of correlation are not to be thought of as percentages," meaning thereby that, for example, "a coefficient of .74 cannot be regarded as indicative of twice as much correlation as is shown by a coefficient of .37." Yet, some of our most eminent and accomplished technicians make use of precisely this phraseology. Would it not clarify the subject if all were agreed that correlations below .74 or even higher have, for the most part, little significance?

There is an especially well written chapter on "Increments and Rates of Change," and likewise on "Secular Trend;" but the inclusion in this last chapter of reference to "trends of prices" seems to the reviewer

as dulling the edge of a very definite phrase. Trends of growth have a distinct suggestion of some probable future movement; trends of prices can have no such implication, save in very special cases. Yet, some of our most approved writers apparently think of prices in just these terms.

A series of appendices add much to the practical value of the work and make easier, to the casual reader, the perusal of an admirably planned and well-knit text.

CARL SNYDER, *General Statistician,  
Federal Reserve Bank.*

**American Economic Life.** By Rexford Guy Tugwell, Thomas Munro and Roy E. Stryker. Harcourt, Brace & Co., New York, 1925. 621 pages. \$4.50.

Written as a text and general elementary introduction to economics, this analysis of present industrial, commercial and agricultural life in the United States may easily have a public wherever there is a desire for a popular, well illustrated treatment of this subject.

**Financial Handbook.** Edited by Robert H. Montgomery. Ronald, New York, 1925. 1749 pages. \$7.50.

A compact aid to financial and other executives will be found in this attractively bound handbook which contains a wealth of informative material. In its pages are found sections on: Fundamentals of Business Economics; Mathematics of Finance; Financial Statements and Reports; Budgets; Control of Current Operations; Business Law; Capital Structure and Policies; Fixed Capital Expenditures; Purchasing; Insurance Protection; Types of Business Organizations; Controlling Inventory Investment; Security Markets; "Blue Sky" Laws; Export and Import Procedure; Foreign Exchange and Financing; Credits and Collections; Dealings with Embarrassed Debtors; Real Estate Transactions; Traffic Management; Transportation Rates; Treasurer-Comptroller-Secretary; Functions, etc.; Banks and Their Uses; Profit-Sharing Plans; Ac-

counts and Audits; Cost Determination; Federal Regulation of Business; Investing Surplus Funds; Business Statistics; Controlling Sales and Sales Expense; Fiduciary Relations; Federal Taxes; Purchase and Sales Terms; Abbreviations of Business Terms.

Many tables, charts and diagrams illustrate the text.

**Organized Labor and the Law.** By Alpheus Thomas Mason, Ph.D. Duke University Press, Durham, N. C., 1925. 251 pages. \$2.50.

Dr. Mason in his introduction says:

"The essential purpose of this study is to ascertain as nearly as possible the responsibility which the law places on organized labor for its acts and the grounds for judicial intervention in industrial disputes. While the author has no particular case to plead, he believes that this examination reveals facts that will allay much of recent criticism suffered by the courts."

This is a valuable mission and in the non-partisan spirit in which Dr. Mason has executed it, he has contributed an excellent example of disinterested thinking. Unfortunately, however, in the execution of his mission he has cast an obscurity about his thesis, which might have been relieved by a deeper study of the problem.

Part One of his book is devoted to the development of the law of conspiracy and restraint of trade in England, as it applied to labor combinations. The author finds this law wrapped in ambiguities and he leaves it so, except to emerge with the idea, correct enough, that the law of conspiracy had its origin in the field of criminal jurisprudence. Turning to the early American cases he finds that trade unions are regarded as criminal combinations either because their purposes are in restraint of trade or their combination to coerce employers amounts to a criminal conspiracy. As he shows, the judiciary turned its back upon these notions in 1842 when it was held in Massachusetts that a combination to establish a closed shop was not a criminal conspiracy.

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Proceeding then to discuss the right to strike, Dr. Mason says, "\* \* \* The doctrine of criminal conspiracy was historically, and still is in the United States the most formidable obstacle, not only to labor activities but to the existence of any labor combination whatsoever." In this the author reveals a confusion in his treatment of the doctrine of conspiracy which persists throughout his book. Although there are passages which indicate the fact, there are none which clearly explain the difference between a criminal conspiracy and a civil conspiracy, and the reader is induced to believe that there is something criminal about every conspiracy.

The Supreme Court of Massachusetts, in the case referred to, held that a combination to establish a closed shop was not a criminal conspiracy, but that precedent gave it no embarrassment in deciding that such a combination was a civil conspiracy against which relief would be given.

The fact is that the legality or illegality of a strike, and even of many of the practices resorted to in aid of strikes, are determined not from precedents in the field of criminal law but from the law of torts. There may be strikes which are common law criminal conspiracies, but for over eighty-five years no attention has been paid to them as such in the United States. There are occasional strikes which are criminal conspiracies under our statute law and are so treated and punished, notably the strike of train service crews in the desert of Arizona during the Shop Crafts strike of 1922. But the vast majority of strikes, if found to be conspiracies at all, are treated purely as civil conspiracies and their illegality is rested either upon the violation of a statute for which a civil remedy is granted, or because the injury contemplated by the strike amounts to a civil injury within the understanding of the law of the torts.

Again, Dr. Mason fails to keep the distinction before his readers between the legality of strike and the legality of measures employed to make a strike effective. This confusion is born of his earlier con-

fusion as to the application of the doctrines of criminal conspiracy. In civil conspiracies the law gives relief only against conduct which actually inflicts unlawful injury. Thus in a strike for wages picketing may be enjoined, but the strike itself and other acts on behalf of its success will not be. Whereas in the case of a strike in violation of a contract the strike and all the strike machinery will be enjoined and the strike leaders may even be ordered to rescind the strike order.

The author also says that the courts have shown no hesitancy in declaring a boycott criminal. Whatever the courts may declare, no criminal prosecution has been undertaken against a labor boycott and, therefore, the statement is misleading. The author is unhappily guilty of other misstatements in which he has been led by superficial inquiry. Speaking of the sympathetic strike he says one discovers little or no difference of opinion. There again he misleads the reader because he fails to appreciate there are two kinds of sympathetic strikes, one of which is lawful and one of which is unlawful. Referring to the Kansas Industrial Court Act, he says that the Act "has been recently set aside by the Supreme Court." There are some 29 sections of the Act and just one section of it has been set aside in respect of only part of the field in which it was intended to apply. There is nothing in the opinions of the Supreme Court dealing with this Act to indicate that the Act is not in full force and effect so far as public utilities are concerned, and the penal causes of the statute by which the citizens of Kansas may have relief against industrial disputes interfering with their essential industries are still in full force and effect.

On the question of injunctive relief he touches upon the doctrine that the right to engage in business and to work is a property right. Unfortunately he has overlooked the valuable material in the case decided by the Supreme Court of Massachusetts holding unconstitutional the anti-injunction law passed in that state. This case would have lent color to his discussion

of the question and helped him later in his study of the Clayton Act.

In his review of the application of the Sherman Act and the Clayton Act to labor combinations, Dr. Mason and his readers reap the reward of more careful study. This part of the work has been well prepared. However, the writer might have added interest to his account of the discussions on the Clayton Act had he set forth the Pierre Bill from which the labor sections of the Clayton Act were derived. The Pierre Bill represents the relief against anti-trust statutes which Mr. Gompers demanded and which he thought he was going to get until practically the last moment. He had talked a great deal about what this bill would accomplish for labor, and the force of labor's political influence in favor of the bill. When he got the Clayton Act instead he was not in any way deceived through lack of competent legal advice, as Dr. Mason suggests, as to the value of it. He proclaimed its supposed virtues, nevertheless, because he did not wish to admit the failure of his political influence in Congress, and because when the courts denied his claims for the Act, the courts would seem to his followers to be prejudiced and unfair.

Dr. Mason's book covers a valuable and interesting field. The temper of the author is always even. The work requires, however, a broader background of law and a closer inspection of details.

MURRAY T. QUIGG, *Editor,*  
*Law and Labor*

**Retail Merchandising, Planning and Control.** By James L. Fri. Prentice-Hall, New York, 1925. 363 pages. \$4.00.

This volume of Professor Fri's is a comprehensive survey of the field of planning and control. It contains 14 chapters on such subjects as the field of retailing, organization, expenses, inventorying, stock turn-over, merchandising budget and policies, which deal with the merchandising side of retailing. It also discusses supervision, the selling force, advertising and

statistics in their relations to the problems of merchandising.

The author has gathered together in compact form a great variety of materials, which cannot be found elsewhere. In handling this material, he does not attempt so much to make actual recommendations as to present data that can be used by the practical retailer in arriving at his own conclusions. At the same time, the author takes positive positions in places where it is possible for him to interpret and arrive at definite conclusions.

The fact that the book was prepared over a period of five years in the class-room and revised under actual teaching conditions, makes it a good text book for teachers. In this connection, the problems represented at the end of the chapters and the bibliographies scattered throughout the volume are particularly useful.

But in addition to this, the book will be of interest to the small retailer, who wishes to secure a detailed picture of the practices of the larger institutions. It will also be of use to those executives, in larger institutions, who wish to secure a picture of the principles that operate often unconsciously in their own establishments.

Executives reading this book will realize that the theories herein presented will not apply equally to all types of stores.

The reviewer feels that more attention might have been paid to the problems of training and personnel, insofar as they effect retail merchandising. To the reviewer, who is a business man rather than a college instructor, some portions of the mathematics of the book seem to be academic, yet they are concrete and will undoubtedly be useful to those who have the experience necessary to handle such material.

The opinion of the reviewer is that no executive's book-shelf should be without this volume, if for no other reason than that it presents current statistics in their relation to retail store trends.

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